

REMARKS

The Office action of September 8, 2004 has been carefully considered and the application has been amended accordingly.

The claims have been amended in view of paragraphs 10 and 11 of the Office action by introducing the subject matter of allowable claim 19 into parent claim 17. As a result, it is believed that parent claim 17, as amended, and depending claims 18, and 20-28 are deemed to be allowed. Also, allowable claim 29 has been amended to be an independent claim and incorporate therein the subject matter of claims 17, 24, 27 and 28, as previously presented; accordingly, it is believed that claim 29, as amended, and depending claims 30-32, are deemed to be allowed.

Double Patenting

In paragraph 2 of the Office action, the examiner has rejected previously presented claims 17 and 19-21 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-3 of the commonly owned U.S. Patent 6,548,027 (granted to, *inter alia*, the same inventors as in the present application) in view of Birmingham et al. (U.S.P. 4,954,320). Applicants wish to point out that patent 6,548,027 is related to PCT Pub. No. WO99/05400 (see Item number 87) on the Front Page of 6,548,027) and this publication is discussed in applicants' present specification at page 3, line 6, and subsequent paragraphs, wherein the differences and improvements of the present invention are discussed in considerable detail. It is respectfully submitted that the present invention, as defined by amended claims 17, 20 and 21, recites a reactor of the dielectric barrier type such that the reactor must possess a dielectric barrier layer in addition to the reactor bed. There is no disclosure of a

dielectric barrier in the cited, commonly owned patent of Hall et al. Further, Birmingham (US 4,954,320) explicitly teaches in column 2, lines 38 to 41 and column 6, line 30, that the reactors disclosed therein operate without a dielectric barrier. Thus, one skilled in the art would not be led by Birmingham to add a dielectric barrier to the reactor disclosed in Hall. Applicants therefor submit that the double patenting rejection should be withdrawn in view of the differences between applicants' claims and the cited art.

A new sheet of corrected drawing, labeled "Replacement Sheet", and which includes the previously missing reference numeral 16, is attached. Approval of the amended drawing and entry into the application is requested.

In view of the foregoing amendments and remarks, applicants respectfully submit that claims 17, 18 and 20-32, as amended, are in condition for allowance, and such action by the Examiner is courteously solicited.

The Commissioner is hereby authorized to charge any required fees associated with this communication and during the pendency of the application under 37 CFR 1.16 and 37 CFR 1.17 or to credit any overpayment to Deposit Account No. 082670. This sheet is submitted in duplicate.

Respectfully submitted,

December 8, 2004
Date

William H. Holt
William H. Holt
Reg. No. 20766

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William H. Holt
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Reg. No. 20766

Law Offices of William H. Holt
12311 Harbor Drive
Woodbridge, Virginia 22192

Telephone: 703-491-8880
Facsimile: 703-491-8444

Email: WilliamHolt@HoltLawOffices.com

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope address to Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on December 8, 2004.

12/8/2004 W.H. Holt

Date

Signature